



CHOOSING A SURGE PROTECTOR

A Power Management Primer



CHOOSING A SURGE PROTECTOR

A Power Management Primer



HOW TO PROPERLY PROTECT YOUR TECH

No matter where you live, your home experiences power surges. Power surges or spikes can damage your valuable electronics like TVs and computers, as well as smaller, more sensitive devices like smartphones and tablets. It's not just lightning strikes, power surges occur every day in your home when large appliances like air conditioning and dishwashers turn on. These smaller surges can slowly harm your electronics and may cause permanent damage.

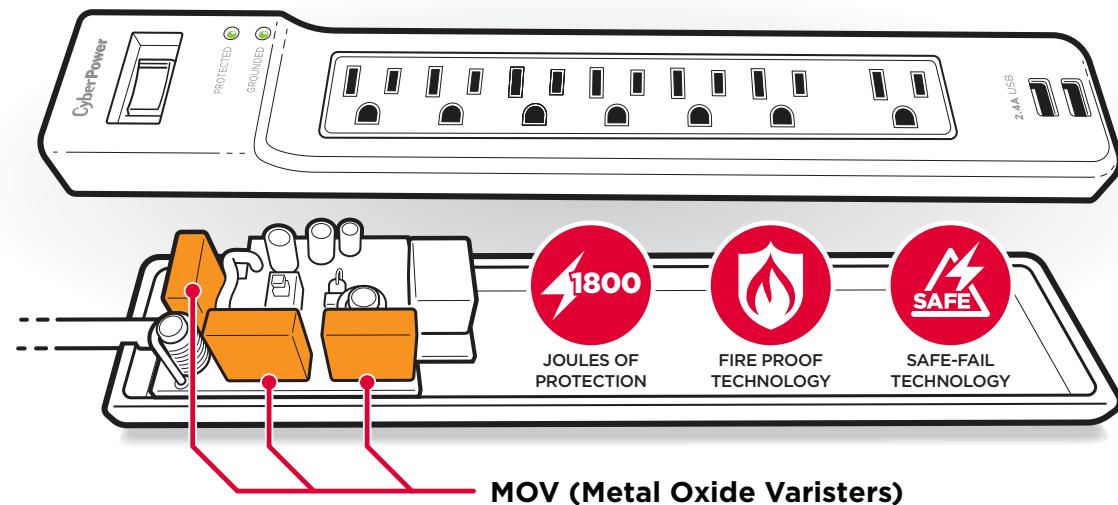
OK, you know you need a surge protector, but which one is right for you?



HOW SURGE PROTECTORS WORK

Let's start by reviewing how a surge protector works. The first thing to understand is that a power strip is not a surge protector. A power strip simply contains additional power outlets to plug in your devices.

Some surge protectors look like power strips, but a surge protector detects and diverts excess voltage to the ground wire before a surge can reach and harm your electronics.



It does this with what is known as a MOV or metal oxide varistor. The MOV allows normal current to pass through to your equipment, while diverting any harmful surges/spikes through the ground wire. Therefore, if your outlet is not properly grounded, your connected electronics will not be protected from surges.

WHERE YOU NEED SURGE PROTECTION

Any valuable electronics should be protected like your TV, computer, smartphone, and tablet. Remember, your smartphone is often plugged in for charging so it's also vulnerable to power surges. The equipment used in your home office is even more important since your business depends on it. And don't forget those expensive tools in your garage or workroom. Basically, any important device that's plugged in every day should be surge protected.

TYPES OF SURGE PROTECTORS



Wall tap

Plugs directly into wall outlet so there's no power cord. Common applications:

- Kitchen
- Bathroom
- Bedroom



Strip

Contains multiple outlets and a power cord.

Common applications:

- Living Room
- Office
- Home Theater



Rackmount

Designed to be mounted to an IT rack.

Common applications:

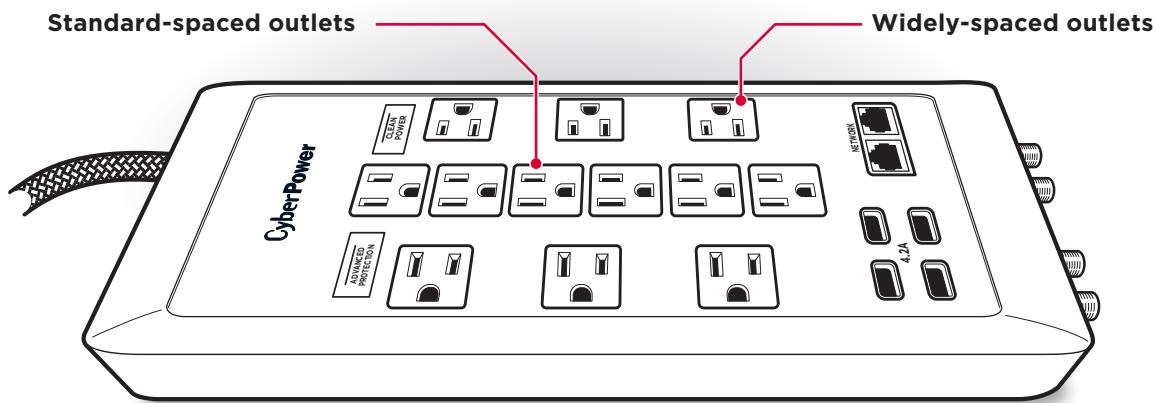
- Server Room
- Home Theater
- Office

STEP-BY-STEP GUIDE

1 DETERMINE THE NUMBER OF OUTLETS AND PORTS YOU NEED

Determine what household items you wish to protect. Better to err on the safe side and protect anything important. If the items are close together, you can buy a surge protector with multiple outlets so everything can be plugged in and protected by one unit. Buying a surge protector with a few more outlets than you need right now will allow for more items to be added later.

If it's just one or two devices you need to protect, consider a wall tap surge protector that plugs directly into a wall outlet. If you have oversized plugs, make sure the surge protector you choose has widely-spaced outlets to accommodate larger plugs so they won't block access to the other outlets.



2 DETERMINE THE TYPE(S) OF OUTLETS YOU NEED

Many surge protectors include USB charging ports. Some now include the new USB-C which can charge larger devices. Other outlets include protection for TVs (coax), telephones (RJ11), and networks (RJ45).



SAFETY NOTE: Never connect multiple surge protectors, power strips, or extension cords together. This may overload the electrical circuit and void any warranty of the surge protector.

STEP-BY-STEP GUIDE

3 DETERMINE THE LEVEL OF PROTECTION YOU NEED

Your level of protection depends on the value of the devices that will be powered and protected. It is measured by clamping voltage and joule rating.

a. Clamping voltage

This is the amount of voltage which triggers the surge protector to redirect excess electricity into the ground wire. So, a lower number is better for clamping voltage.

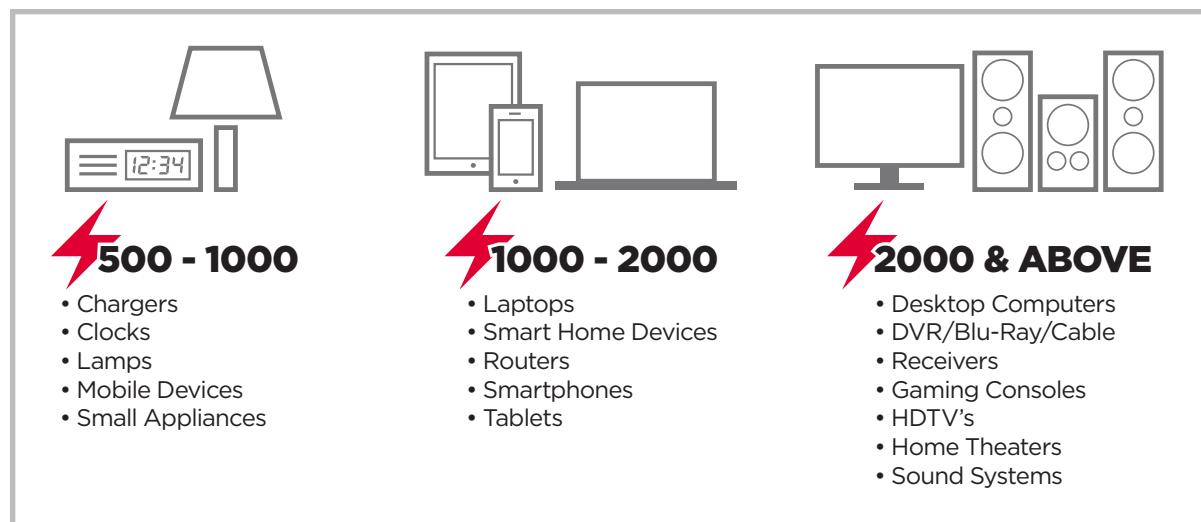
b. Joule rating

Energy absorption is measured in joules. So, the more joules the better. The joule rating indicates the maximum amount of energy that can be absorbed by the surge protector. Joules can be consumed by power surges and will decrease over time.

Therefore, surge protectors gradually lose their joule protection and eventually need to be replaced.

HOW MANY JOULES DO I NEED?

The type and value of your equipment are key factors in determining the level of protection you need.



OTHER FEATURES TO CONSIDER

SAFETY FACTORS

Tamper-resistant outlets block objects from coming in contact with unused outlets for child safety.

Fireproof technology safeguards your home and family from a damaging power surge turning into a fire.

Safe-fail protection cuts power to connected equipment when the surge protector can no longer provide surge protection.

LED indicator confirms that the surge protector is functioning and your devices are powered and protected.

UL/TUV certification ensures the surge protector meets universal product safety standards.

PERFORMANCE FACTORS

USB ports provide charging capability for USB-enabled devices. Some surge protectors now feature USB-C ports for even faster charging.

EMI/RFI noise filter reduces electro-magnetic interference for better picture and sound quality.

Energy-saving functionality automatically turns off power to attached devices when not in use, saving “standby” power usage, which can increase your electric bill.

LED lights and color-changing functionality allow you find the surge protector in the dark and accent your room decor.

Warranty and Connected Equipment Guarantee are included on all surge protectors.

PLACEMENT FACTORS

Low-profile plugs fit into tight spaces and behind furniture.

Mounting Slots allow the surge protector to be easily mounted on a wall or furniture, such as a desk or entertainment center.

TYPES OF CYBERPOWER SURGE PROTECTORS



ESSENTIAL

Essential surge protectors are ideal for personal computers, wireless/VOIP routers, cable/DSL modems, and other consumer electronics. Series features include: surge-protected outlets, transformer-spaced outlets, data line protection, built-in automatic shutdown, metal oxide varistor (MOV) technology, noise filters for electromagnetic interference/radio-frequency interference (EMI/RFI), and impact-resistant casing.



HOME DÉCOR

Combining form and function, our new line of surge protectors features a contemporary look so they blend naturally into a modern home. Many include LED lighting features so they are always easy to find – even in the dark! Some come with a rainbow of color options so you can customize the mood or décor of any room.



HOME OFFICE

Surge protectors from our Home Office series protect computers, printers, modems, routers and some offer RJ11 (telephone), RJ45 (network), and Coaxial/Cable data line protection.

TYPES OF CYBERPOWER SURGE PROTECTORS



HOME THEATER

Perfect for protecting your home theater and sound systems, gaming gear, and electronic devices from lightning-induced surges and other power events. Some models offer low profile design for tight spots and swivel for better cord management. Optional features include safe-fail technology, USB charging ports, and network line protection.



PREMIUM

Premium surge protectors are built to safeguard with home audio/video equipment, consumer electronics, modems, and personal computers. Premium series feature include: surge-protected outlets, widely-spaced outlets, fireproof technology, safe-fail protection, data-line protection, EMI/RFI noise filters, and impact-resistant casing, and braided cords.



ENERGY SAVINGS

Advanced power strips safeguard your electronic equipment from harmful power spikes while lowering your electric bill. Eco features can lower electricity costs by minimizing standby power usage.

TYPES OF CYBERPOWER SURGE PROTECTORS



PROFESSIONAL

Designed to perform in office and home office environments, our Professional surge protectors are ideal for computers, cable/DSL modems, wireless/VoIP routers, networking and telecommunication equipment, consumer electronics, and more. Series features include: surge-protected outlets, widely-spaced outlets, data line protection, built-in automatic shutdown, metal oxide varistor (MOV) technology, noise filters for electromagnetic interference/radio-frequency interference (EMI/RFI), and impact-resistant casing.



RACKMOUNT

Designed for office environments and placed in an IT rack, these surge suppressors offer higher levels of surge protection to safeguard high-end equipment from power events.

DECISION TIME

Choosing a surge protector is an important decision, especially if you have expensive electronics to protect and making an informed decision is paramount. Now that you understand how a surge protector can safeguard your devices against damaging electrical surges and the different types of surge protectors available, you can make an educated decision. If you still have questions, CyberPower has a technical support team to help make sure you buy the right surge protection to fit your needs.

WHY CHOOSE CYBERPOWER?

At CyberPower, power is our focus. It's what we do. To compete, we must lead the way by developing innovative solutions. As the direct manufacturer of the product, CyberPower has better control of quality through the entire manufacturing process and all of our surge protectors come with a Connected Equipment Guarantee and a Lifetime Limited Warranty. With CyberPower, you get surge protection and peace of mind.

From essential to professional, CyberPower has a wide array of different surge protectors to safely power and protect your electronics from energy spikes and surges. From simple power-and-charge to advanced, feature-rich models, CyberPower has surge protection solutions for all your power protection needs.



Connected Equipment Guarantee

CyberPower will repair or replace properly connected equipment if it is damaged by a power surge. CyberPower offers varying guarantee levels of up to \$500,000, depending on the product.



Industry-leading warranties

All CyberPower surge protectors are backed by a limited lifetime warranty that covers defects in materials and workmanship in the product under normal use and conditions.



US-based technical support

All CyberPower surge protectors are backed by a US-based technical support team that is available to answer your surge installation and operational questions.

YOU DEPEND ON RELIABLE POWER

Stay connected
& protected



Rely on CyberPower to ensure peak performance, surge protection, and power continuity.

For questions or help locating a reseller, contact us toll free:

833-444-1055
Monday - Friday
8am - 5pm CST

CyberPower provides many great resources on our website; from product catalogs and promotions, to tools and support. Visit us for the latest information.

CyberPowerSystems.com

CONTACT | Cyber Power Systems (USA), Inc. | 833-444-1055 | sales@cpsww.com | CyberPowerSystems.com

CyberPower

©2019 Cyber Power Systems (USA), Inc. All rights reserved. All other trademarks are the property of their respective owners. CyberPower reserves the right to change, without prior notice, marketing programs, product offerings or specifications.